



indiginus

For **Appalachia**, we sampled a hand-made dulcimer born in the mountains of Tennessee. As always, our goal was to create a virtual instrument that captures the spirit of the hand crafted original and present it in a way that is fun and engaging to play, with an intuitive design that doesn't get in the way.



Why **Progressive** Mountain Dulcimer?

Most mountain dulcimers are diatonic, designed to play in a key or keys determined by the string tuning and fret arrangement. While this is fine if your song or project happens to be in D major, things get difficult if you need to be in Bb, for instance.

We sampled our dulcimer chromatically, so you can play in any key and create parts that would be impossible on the real-world instrument.

This way, Appalachia can sound authentic while at the same time be very versatile and infinitely more useful in modern arrangements.

There are two main modes of playing here, one with the **Strum** button off and the other with the **Strum** button on. We'll be using the term "**"Solo mode"**" for when the **Strum** button is off.

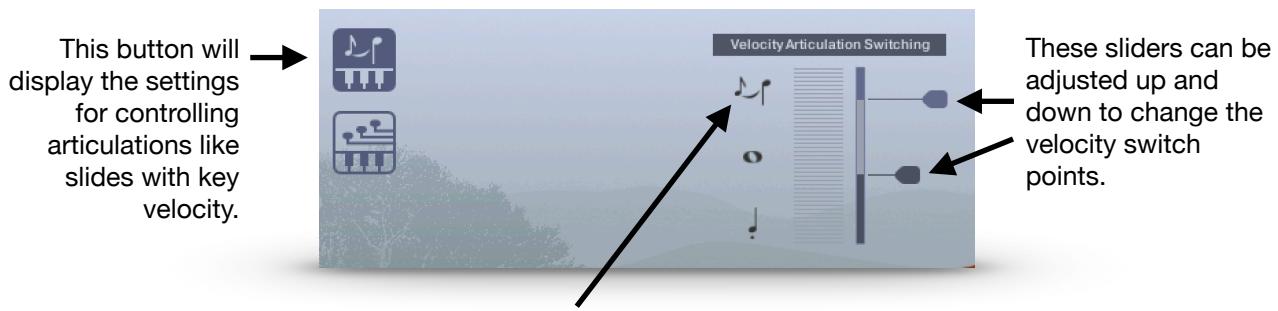
Solo Mode (Strum button off)

Key Velocity Articulation Switching

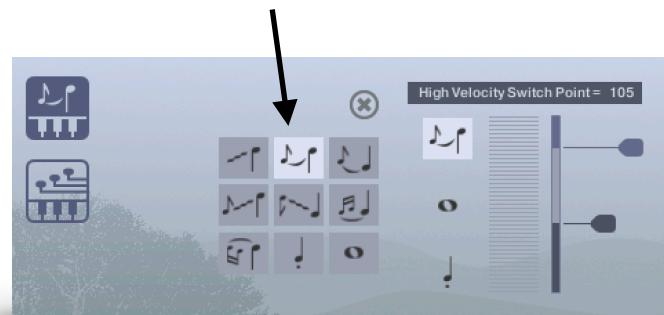
If you are already familiar with our instruments, you will recognize this type of display.

There are three key velocity zones where you can choose which articulation will sound, and controls to move the zones to fit your style and keyboard controller.

Note: key switches over-ride the velocity switching.



Clicking on one of these note icons will display the choices for that velocity zone.



Note: Intervals used in these articulations are controlled by the Key Dial, and note duration values can be adjusted in the Settings Panel.

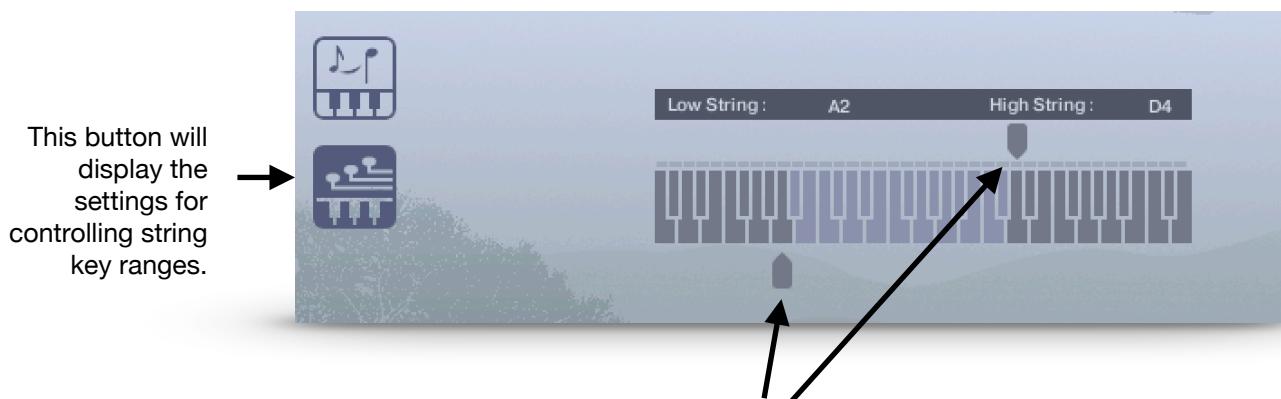
	Regular sustained notes.		Grace note up. Like Hammer-on but with a quick slide. Tempo synced.
	Quick up-slide.		Grace note down. Like Pull-off but with a quick slide. Tempo synced.
	Hammer-on. Tempo synced.		Up-trill. Tempo synced.
	Pull-off. Tempo synced.		Down-trill. Tempo synced.
	Mute		

Solo Mode (Strum button off)

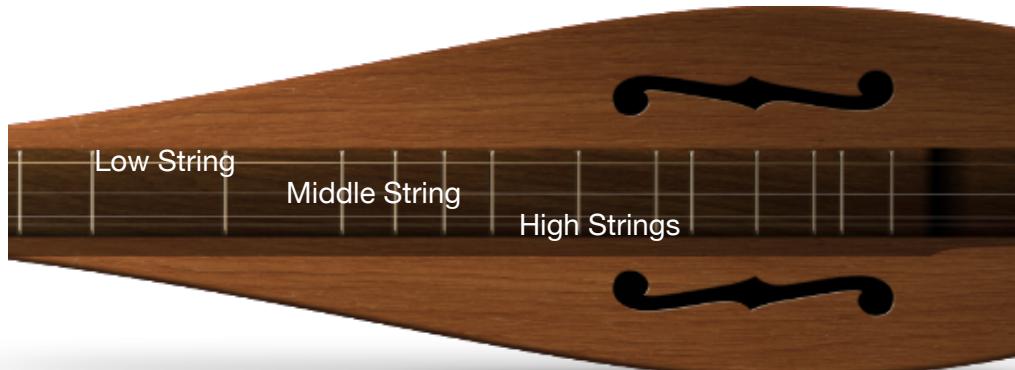
String Key Ranges

Each string was sampled along it's full length, and you can choose the split points on the keyboard to adjust the ranges of the strings. This can change the sound of the middle range of the instrument dramatically.

The “High String” is actually two strings tuned in unison and played together.



Sliders to adjust the key ranges for each string.
Or, you can click on the note names above.



Solo Mode (Strum button off)

Lower Panel Controls



Envelope release time. This controls how long the notes will ring out after you release a key. Make it short for a more guitar-like response, and longer for a more dulcimer-like sound.



The Picker

The Picker plays automatic picking patterns when you hold a chord (up to 4 notes) in the playing range. The sustain pedal will keep the pattern playing.

Style lets you choose between different picking patterns. You can either select using the menu or use the Style dial, which can be automated using Kontakt's *Learn MIDI CC Automation* (right click on the control).

Strength controls the overall intensity of the picking,



Note Resolution can be adjusted to sync correctly to your master tempo.

Overlap control the amount of sustain between notes, or how the notes overlap.

Solo Mode (Strum button off)

Lower Panel Controls continued



Harmony adds an automatic harmony with whatever notes you play.

Style lets you select the type (interval) of the harmony.

The **Key Dial** must be set to the key you are playing in.



The Key Dial is probably the most important single control.

The Key Dial setting determines the Harmony and the intervals used in articulation like hammer-ons, pull-offs, and grace notes in both Solo Mode and Strum Mode.

Strum Mode Lower Controls



Appalachia has a manual strumming feature (no auto patterns) that allows you to play chords and melody at the same time in order to get a realistic mountain dulcimer sound.

Lower Panel Strum Controls

Art Vel Sw This turn on the key velocity articulation switching. This is kind of like the same function as in Solo Mode, but dealing with all 3 strings instead of just one. More on this later,

Looseness controls the speed of the pick over the strings.

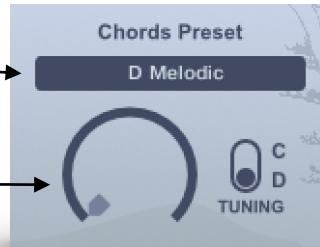
Mute Vel Sw control the velocity split point below which will trigger mutes strums rather than sustaining strums. Turn this up for creating aggressive strumming effects.

Scrape controls the volume of a separate muted strum over the strings.

Strum Mode

Change Presets by using the pull-down menu,

or the dial, which can be automated using Kontakt's Learn MIDI CC Automation feature.



Note: Appalachia is by default set to the instrument's native key of D!

But you can use this dial to select another setting in another key.

Chords Preset lets you choose from chord sets that cover the entire instrument.

Think of the 2 octave range as each note representing a fret position, with any chord possible on any fret. You can edit these settings.

Tuning allows lowering the tuning of the strings to C-G-C rather than D-A-D.

Please be aware that setting this to C could change the sound of all the chords in the preset!



Strum playing range. If you are using one of the Melodic presets you can think of each key representing a fret.

Strum Mode

Using the Fret Board

Each note in the playing range of the keyboard can have its own chord.

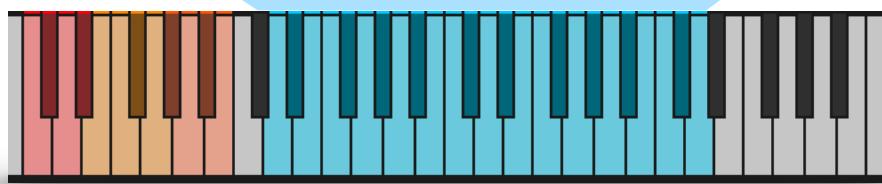
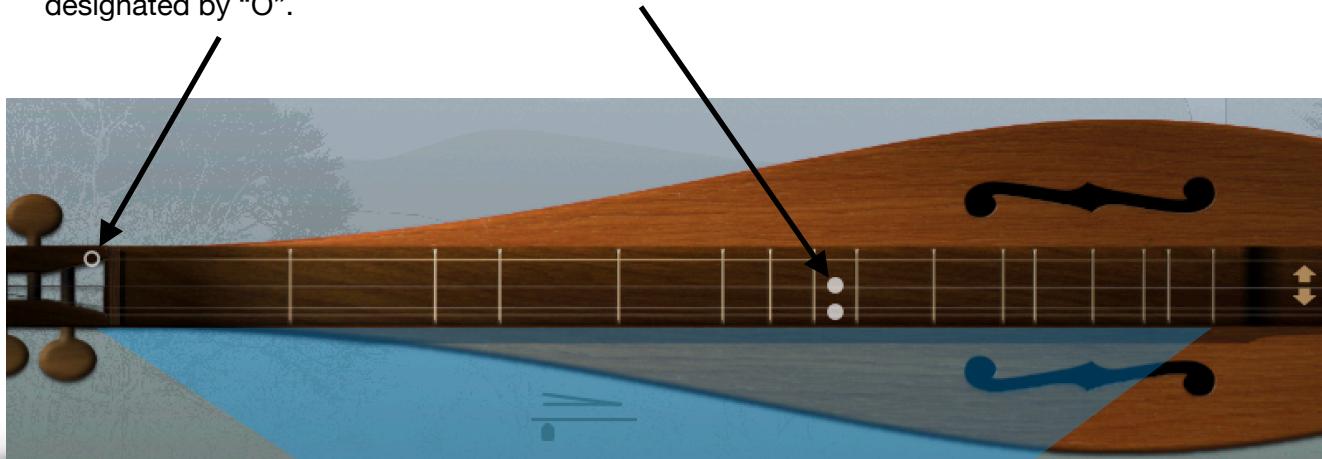
In the case of the Melodic presets, you can see how the melody notes can correspond to fret positions if you like, although any position can have any chord you create.

The dulcimer is displayed as it looks in reality, with frets configured for playing in a major scale. Since Appalachia is chromatic, the larger (whole step) frets will contain two notes instead of one:



Just play any note in the playing range, and you'll see whatever chord is assigned to that key on the keyboard. Again, you can create any chord on any key.

To move notes on the fret board, click and drag them. All the way to the left is an open string designated by "O".



With the Melodic presets, keys in the playing range can be thought of as fret positions (or not).

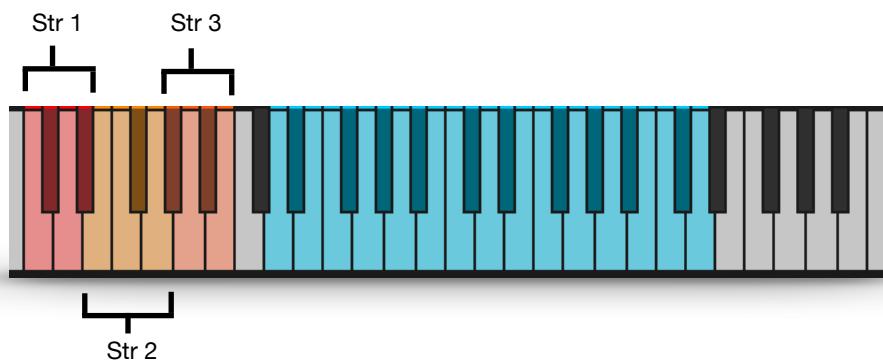
The **Save Chords** button lets you save your settings. Remember to resave the instrument .nki if you want to keep your changes outside of your DAW.

Reset Chords recalls the default chord setup for the current preset.

Strum Mode

Strum Mode Key Switches

Keys C1 to B1 are key switches allowing you to trigger hammer-ons, pull-offs, and up and down slides for individual “strings”.



C1 String 1 Hammer-on

C#1 String 1 Slide Up

D1 String 1 Pull-off

D#1 String 1 Slide Down

E1 String 2 Hammer-on

F1 String 2 Slide Up

F#1 String 2 Pull-off

G1 String 2 Slide Down

G#1 String 3 Hammer-on

A1 String 3 Slide Up

A#1 String 3 Pull-off

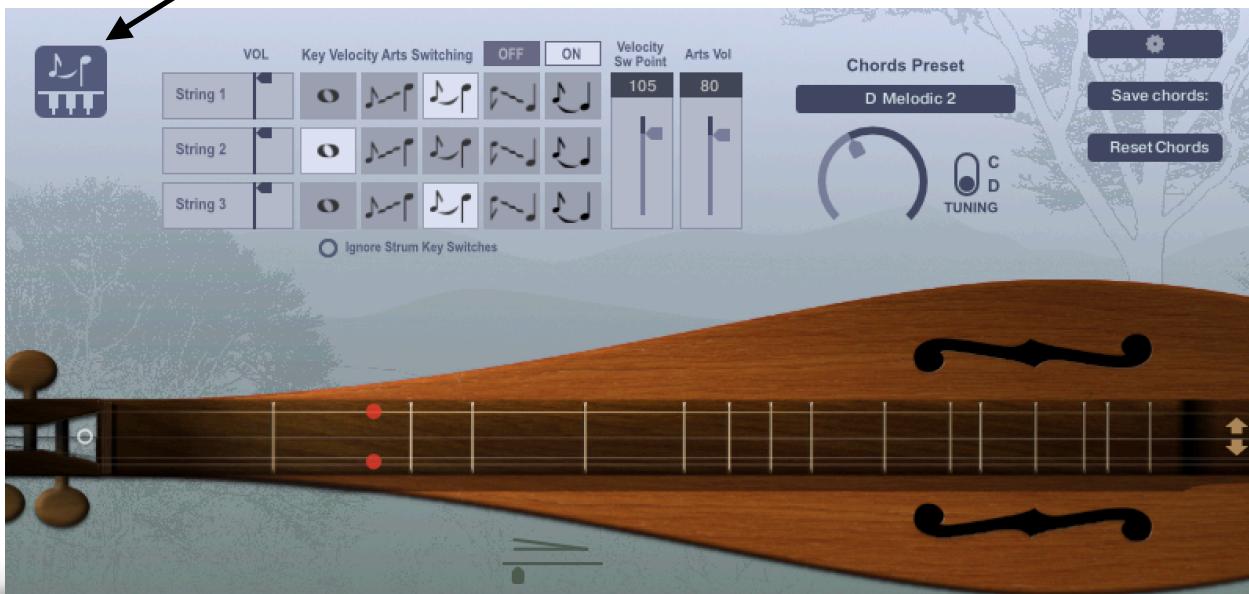
B1 String 3 Slide Down

Don't like key switches? There is another way...

Strum Mode

Velocity Articulation Switching

In Strum Mode, clicking on this icon displays these controls:



With the **Art Vel Sw** on, you can add a layer of velocity triggered articulations to your chords. Each string has its own velocity settings.

Play any key in the two octave playing range, then select one of the articulations for that position. It will change the color of the fretted note to indicate the articulation.

Note: Open strings will still play hammer-ons and up slides to avoid confusion, even though this could not happen with the physical instrument.

Velocity Sw Point Sets the point above which key velocity will trigger the articulation.

Arts Vol Lets you adjust the overall volume of the articulations.

VOL Each string has a little fader to attenuate volume if needed. This comes in handy if you are playing melody on string 3 but the other strings are overpowering it.

Key Velocity Arts Switching Turns this feature on or off. This is a duplicate of the **Art Vel Sw** in the lower panel.

Ignore Strum Key Switches This is useful if you use 2 instances of Appalachia in order to play a melody in Solo mode with one instance, and play strums in Strum mode at the same time. Otherwise there would be a conflict with key switching.

Your velocity articulation settings are saved with the chords setting when saving with the Save Chords menu.

Settings Panel Articulation Controls

Articulation Settings		Global	Articulation Transitions Volume	Effects	
Hammer/Pull-off/Grace Notes <div style="display: flex; align-items: center;">  Semitone Scale <div style="border: 1px solid #555; padding: 2px; border-radius: 10px; text-align: center; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div> Trills <div style="display: flex; align-items: center;">  <div style="border: 1px solid #555; padding: 2px; border-radius: 10px; text-align: center; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div>		<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF Blues Mode	<input type="checkbox"/> Key Vel Sens <input type="checkbox"/> Exp(CC11)Amt <input type="checkbox"/> Release Vol <input type="checkbox"/> Noises Vol	<input type="checkbox"/> Hammer <input type="checkbox"/> Pull-off <input type="checkbox"/> Grace Up <input type="checkbox"/> Grace Dn <input type="checkbox"/> Slides <div style="display: flex; align-items: center; margin-top: 10px;"> <input type="checkbox"/> Mod Wheel to Vibrato <div style="margin-left: 10px; border: 1px solid #555; padding: 0 5px; border-radius: 10px; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div>	<input type="checkbox"/> Body IR <div style="display: flex; align-items: center; margin-top: 10px;"> <input type="checkbox"/> Compressor <div style="margin-left: 10px; border: 1px solid #555; padding: 0 5px; border-radius: 10px; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <input type="checkbox"/> Reverb <div style="margin-left: 10px; border: 1px solid #555; padding: 0 5px; border-radius: 10px; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div>
Articulation Key Switches		Sustain On: C1 Hammer On: F1 Pull Off: B1 Grace Up: F#1	Grace Down: G#1 Trill Up: G1 Trill Down: A1 Up Slides: A#1	Mutes: D1 Harmony: E1	<div style="border: 1px solid #555; padding: 2px; border-radius: 10px; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center; margin-bottom: 5px;"></div> Type Large Room ▾
					<input type="checkbox"/> Send <div style="display: flex; align-items: center; margin-top: 10px;"> <input type="checkbox"/> Mod Wheel to Vibrato <div style="margin-left: 10px; border: 1px solid #555; padding: 0 5px; border-radius: 10px; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center; margin-left: 10px;"></div> </div>



Hammer-on/Pull-off/Grace Note Resolution

This controls the timing for these articulations, allowing them to sync to your project's master tempo.



Trills Resolution

This controls the timing for these articulations, allowing them to sync to your project's master tempo.

Semitone/Scale The intervals used in articulations can use the scale notes of the current key or all be set to semitone (half-step).

Blues Mode This will flat the 3rd interval in articulations for a bluesier sound.

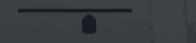
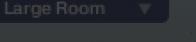
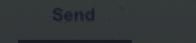
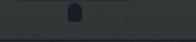
Articulations Transitions Volume A mixer that allows control over the volume of the articulations. This can be helpful if an articulation is too loud when triggered by high key velocities.

Settings Panel Continued

Articulation Key Switches					
Sustain On:	C1	Grace Down:	G#1	Mutes:	D1
Hammer On:	F1	Trill Up:	G1		
Pull Off:	B1	Trill Down:	A1	Harmony:	E1
Grace Up:	F#1	Up Slides:	A#1		

Articulation Key Switches

Here you can set the key switches for the Solo Mode articulations.

Articulation Settings		Global		Articulation Transitions Volume		Effects	
Hammer/Pull-off/Grace Notes	 Semitone Scale	ON <input type="checkbox"/> OFF	Blues Mode	Key Vel Sens	<input type="range"/>	Body IR	
				Exp(CC11)Amt	<input type="range"/>	Compressor	
				Release Vol	<input type="range"/>	None	
				Noises Vol	<input type="range"/>	Too Much	
Articulation Key Switches		Hammer		Grace Up		Reverb	
Sustain On:	C1	Grace Down:	G#1	Mutes:	D1	Type	
Hammer On:	F1	Trill Up:	G1			Large Room	
Pull Off:	B1	Trill Down:	A1	Harmony:	E1		
Grace Up:	F#1	Up Slides:	A#1			Send	
Mod Wheel to Vibrato				Mod Wheel		Vibrato	

Global Controls

Key Vel Sens Determines how key velocity will effect volume (amp).

Exp(CC11)Amt Determines how expression (MIDI CC #11) will control volume.

Release Vol Controls the volume of release samples.

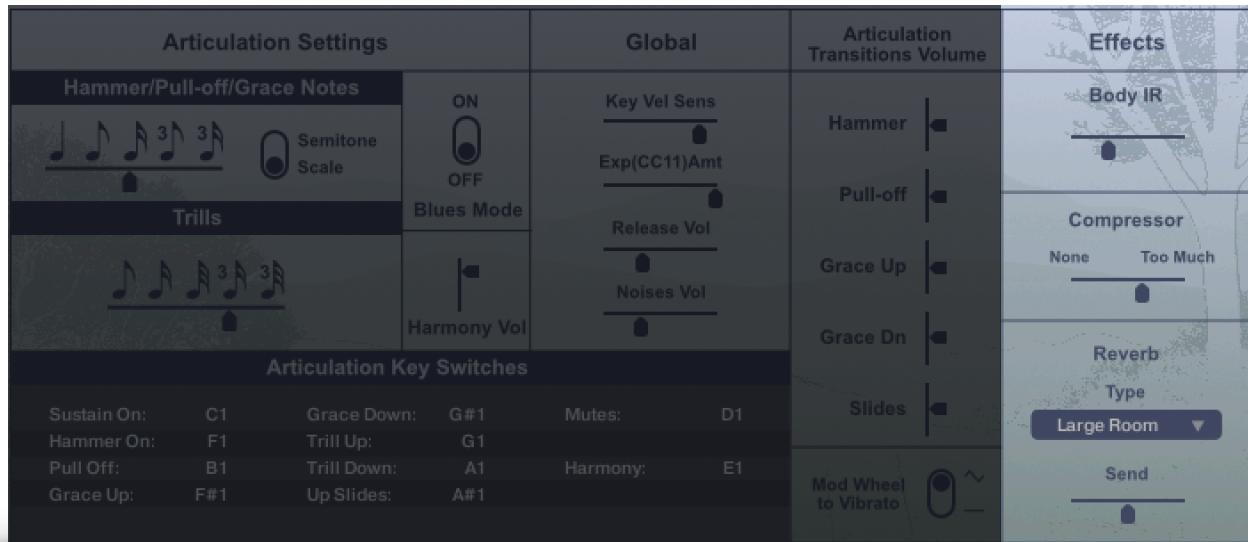
Noises Vol Controls the volume of background string noises.

Harmony Vol Controls the volume of the automatic harmony notes.

Mod Wheel to Vibrato Connects the mod wheel (CC#1) to vibrato. You can turn this off if you would like to use the mod wheel for another purpose.

Settings Panel

Effects



We've included some built-in effects. You can defeat these by turning them all the way down.

Body IR Add an impulse response of the dulcimer body for a thicker sound.

Compressor This can accentuate attack or even out strumming tracks.

Reverb Type Choose between several rooms or plate reverb.

Reverb Send Controls the amount of signal sent to the reverb effect.



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